

REMARKS

Applicants have amended their claims in order to further clarify the definition of various aspects of the present invention. Specifically, the subject matter of claim 8 has been incorporated into claim 1; claim 1 has been further amended to recite that the polyurethane resin-cured material is formed from a composition comprising, inter alia, mainly an alkylene oxide adduct of xylylenediamine, and to recite that the resin-cured material contains 25% by weight or more of the skeletal structure represented by Formula (1). Claim 2 has been amended in light of amendments to claim 1; and in light of amendments to claim 1, claims 3-6 and 8-10 have been canceled without prejudice or disclaimer, and dependency of claim 7 has been amended. Claim 7 has been further amended to correct a typographical error therein.

Moreover, Applicants are adding new claims 12-16 to the application. Claim 12, dependent on claim 1, further defines amount of the skeletal structure represented by the Formula (1) contained in the resin-cured material, consistent with the description on page 16 of Applicants' specification. Claims 13 and 14, dependent respectively on claims 1 and 13, define a ratio of the number of isocyanate groups in the organic polyisocyanate compound (B) to the sum of the number of hydroxyl groups and amino groups in the alkylene oxide adduct of xylylenediamine (A), consistent with the descriptions on page 17 of Applicants' specification. Claims 15 and 16 recite the same subject matter as expressly set forth in claim 11, but are dependent respectively on claims 2 and 7.

The provisional obviousness-type double patenting rejection of claims 1-11, as unpatentable over claims 1-40 of copending Application No. 10/453,609, set forth

on page 2 of the Office Action mailed March 22, 2005, is noted. Application No. 10/453,609 has now issued as U.S. Patent No. 6,887,966, issued May 3, 2005.

In response to the (provisional) obviousness-type double patenting rejection, enclosed please find a Terminal Disclaimer in the above-identified application, with respect to U.S. Patent No. 6,887,966. Also enclosed is the necessary fee in connection with filing this Terminal Disclaimer. It is respectfully submitted that all applicable requirements of 37 CFR 1.321(c) have been satisfied in connection with filing of the enclosed Terminal Disclaimer. In view thereof, it is respectfully submitted that any obviousness-type double patenting rejection based upon U.S. Patent No. 6,887,966, is moot.

It is respectfully submitted that the present filing of this Terminal Disclaimer does not constitute an agreement with, or an admission as to the propriety of, the (provisional) obviousness-type double patenting rejection; and does not constitute agreement with, or an admission as to propriety of, arguments made by the Examiner in connection with the (provisional) obviousness-type double patenting rejection.

Applicants respectfully submit that all of the claims presented for consideration by the Examiner patentably distinguish over the teachings of the reference applied by the Examiner in rejecting claims in the Office Action mailed March 22, 2005, that is, the teachings of European Patent Application No. EP 1081170 to Tawa, et al., under the provisions of 35 USC 102 and 35 USC 103.

It is respectfully submitted that this reference as applied by the Examiner would have neither taught nor would have suggested such a gas-barriering coated film as in the present claims, obtained by coating a specified layer which includes a

polyurethane resin-cured material comprising mainly an alkylene oxide adduct of xylylenediamine (A) and an organic polyisocyanate compound (B), with 25% by weight or more of a skeletal structure represented by Formula (1) being contained in the resin-cured material, the organic polyisocyanate compound (B) being a reaction product as set forth in present claim 1 and having two or more NCO groups at an end. Note claim 1.

Furthermore, it is respectfully submitted that the applied reference would have neither taught nor would have suggested such gas-barriered coated film as in the present claims, with 25% by weight or more of a skeletal structure represented by Formula (1) being contained in the resin-cured material of the gas barriered layer, and additionally wherein the alkylene oxide adduct of xylylenediamine (A) and the organic polyisocyanate compound (B) contain compounds which react to form the skeletal structure represented by Formula (1) (see claim 2); and/or wherein the alkylene oxide is alkylene oxide having 2-4 carbon atoms (see claim 7); and/or wherein at least 30% by weight of the skeletal structure represented by the Formula (1) is contained in the resin-cured material (see claim 12); and/or wherein the ratio of number of isocyanate groups in the organic polyisocyanate compound (B) to the sum of the number of hydroxyl and amino groups in the alkylene oxide adduct of xylylenediamine (A) is in a range as in claims 13 and 14; and/or the materials for the flexible polymer film or inorganic-deposited polymer film as in claims 11, 15 and 16.

The present invention is directed to a non-halogen base, gas-barriered coated film, which can suitably be used for packing materials for foods and medicines.

As described in the paragraph bridging pages 2 and 3 of Applicants' specification, a gas-barriering film having a polyurethane resin with a gas barriering property has been previously disclosed. However, this polyurethane resin does not have an adhesive property between films; and, accordingly, when a gas barriering property is required in packing materials, an adhesive has to be applied, so that a laminated film is disadvantageous in terms of production costs and in terms of increased thickness.

Against this background, Applicants provide a gas-barriering coated film having excellent gas-barriering properties, transparency, bending resistance and a retort treating resistance. Moreover, the film has good adhesive properties, due to the good adhesive property of the gas barriering layer. Applicants have found that by utilizing the gas barriering layer as in the present claims, including the alkylene oxide adduct of xylylenediamine and the recited organic isocyanate compound (B), with specified amounts of the skeletal structure represented by Formula (1) contained in the resin-cured material, objectives according to the present invention are achieved, providing an adhesive having good gas barrier properties and other properties.

Tawa, et al. discloses a gas barrier polyurethane resin useful as a film, a sheet or a molding material. See paragraph [0001] of Tawa, et al. This patent document discloses that the gas barrier polyurethane resin has total concentration of urethane and urea groups that is not less than 15% by weight, and that such polyurethane resin can be prepared from, e.g., an aromatic, aliphatic, araliphatic or alicyclic diisocyanate as its diisocyanate component and a C₂₋₈ alkylene glycol as its diol component. See paragraphs [0011] and [0012] on page 3 of this patent

document. Note also paragraphs [0014]-[0017] on page 3, and paragraphs [0041] and [0045] on page 6, of Tawa, et al. This patent document discloses that the polyurethane resin may be used as a single-layered filmy article or as a multi-layered article constituted of a base and layer(s) formed thereon, and that at least one side of the base film may be provided with an inorganic layer. See paragraphs [0058], [0059] and [0064] on page 8 of Tawa, et al. Note also paragraph [0068] on page 9 of Tawa, et al.

As can be seen from the foregoing, as well as from a full review of this document, the applied reference would have neither taught nor would have suggested such coated film as in the present claims, formed from the composition comprising the alkylene oxide adduct of xylylenediamine (A) and the specified organic polyisocyanate compound (B), with at least 25% by weight or more of the skeletal structure represented by Formula (1) being contained in the resin-cured material, and advantages thereof; and/or the other features of the present invention as discussed previously, and advantages thereof.


The interpretation by the Examiner of the teachings of Tawa, et al., set forth in the second paragraph on page 3 of the Office Action mailed March 22, 2005, is noted. Even as interpreted by the Examiner, it is respectfully submitted that the teachings of the applied reference do not disclose, nor would have suggested, the resin obtained, inter alia, from the alkylene oxide adduct of xylylenediamine (A) and the specified organic polyisocyanate compound (B) as in claim 1, and advantages thereof, as discussed previously; and/or the minimum amount of the skeletal structure represented by Formula (1) as in the present claims, and advantages thereof.

In view of the foregoing comments and amendments, reconsideration and allowance of all claims presently in the application are respectfully requested.

Applicants request any shortage of fees due in connection with the filing of this paper be charged to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (case 396.43428X00) and credit any overpayment to such Deposit Account.

Respectfully submitted,

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ATTACHMENT TO AMENDMENT:

1. Terminal Disclaimer (of U.S. Patent No. 6,887,966); and
2. Credit Card Payment Form (Form PTO-2038).